IN THE CLAIMS

1. (Currently Amended) A method for managing accesses to data objects by multiple user

programs over a network, comprising:

      generating a page including at least one editable field of data from at least one data object;

      calculating an initial value from the at least one data object, said initial value reflecting the initial state of information in said data object;

      transmitting the page and the initial value to one user program over the network;

      receiving the page and the initial value from the user program, wherein the received page includes modified data in at least one editable field;

      calculating a current value from the at least one data object after receiving the page, said current value reflecting the current state of information in said data object;

      determining whether the initial value transmitted with the received page is different than the current value; and

      if the initial and current values match, updating the data object with the modified data included in the received page.

2. (Original) The method of claim 1, further comprising:

      not updating the data object with the modified data in the received page if the initial and current values do not match.

3. (Original) The method of claim 2, further comprising:

      returning a message to the user program transmitting the page indicating that the modified data in the transmitted page was not applied to the data object.

4. (Original) The method of claim 1, wherein updating the data object comprises adding the modified data to the content of the data object.

5. (Original) The method of claim 1, wherein updating the data object comprises adding the modified data to a name of the data object.

6. (Original) The method of claim 1, wherein the page includes multiple editable fields, wherein each of the editable fields correspond to one of a plurality of data objects, wherein the value is calculated from the plurality of the data objects, whereby a modification to one of the plurality of data objects between a time the initial value and current value are calculated will cause the initial value to differ from the current value.

7. (Original) The method of claim 6, wherein updating the data object further comprises updating each of the plurality of data objects with the data from the corresponding editable field in the received page, wherein at least one of the editable fields includes modified data.

8. (Original) The method of claim 1, wherein the page includes multiple editable fields, wherein each of the editable fields corresponds to one of a plurality of data objects,

wherein calculating the initial value further comprises calculating a plurality of initial values, wherein each initial value is calculated from at least one data object corresponding to at least one editable field in the page;

wherein calculating the current value further comprises calculating a plurality of current values, wherein each current value is calculated from at least one data object corresponding to at least one editable field in the page;

wherein determining whether the initial value transmitted with the received page is different than the current value is performed for each of the plurality of initial and current values; and

wherein updating the data object with the modified data included in the received page further comprises updating each data object used in the calculation of the matching initial and current values with the modified data included in the received page.

9. (Original) The method of claim 8, further comprising:

generating information on groups of the data objects corresponding to editable fields in the page, wherein each group comprises at least one data object corresponding to one editable field in the page, and wherein one initial value is calculated for each group from the data objects in the group.

10. (Original) The method of claim 9, wherein each data object is associated with only one group.

11. (Original) The method of claim 8, further comprising:

generating information into a message indicating editable fields corresponding to data objects used in calculating initial and current values that do not match; and

generating information into the message that modifications made to the indicated editable fields were not applied.

12. (Original) The method of claim 1, wherein the initial value and current value are calculated by performing a checksum operation on the at least one data object.

13. (Original) The method of claim 1, wherein the page comprises one of a Hypertext Markup Language page. Extensible Markup Language (XML) page, an American Standard Code for Information Interchange (ASCII) text file, and Standard Generalized Markup Language (SGML).

14. (Original) The method of claim 1, wherein each data object comprises a file in a file system.

15. (Original) The method of claim 1, wherein the user program generates a graphical user interface in which the page is rendered and presented.

16. (Original) The method of claim 1, wherein the initial value is encoded in the page.

17. (Currently Amended) A system for managing accesses to data objects by multiple user programs over a network, comprising:

    means for generating a page including at least one editable field of data from at least one data object;

    means for calculating an initial value from the at least one data object, said initial value reflecting the initial state of information in said data object;

    means for transmitting the page and the initial value to one user program over the network;

    means for receiving the page and the initial value from the user program, wherein the received page includes modified data in at least one editable field;

    means for calculating a current value from the at least one data object after receiving the page, said current value reflecting the current state of information in said data object;

    means for determining whether the initial value transmitted with the received page is different than the current value; and

    means for updating, if the initial and current values match, the data object with the modified data included in the received page.

18. (Original) The system of claim 17, wherein the data object is not updated with the modified data in the received page if the initial and current values do not match.

19. (Original) The system of claim 18, further comprising:

means for returning a message to the user program transmitting the page indicating that the modified data in the transmitted page was not applied to the data object.

20. (Original) The system of claim 17, wherein the means for updating the data object adds the modified data to the content of the data object.

21. (Original) The system of claim 17, wherein the means for updating the data object adds the modified data to a name of the data object.

22. (Original) The system of claim 17, wherein the page includes multiple editable fields, wherein each of the editable fields correspond to one of a plurality of data objects, wherein the value is calculated from the plurality of the data objects, whereby a modification to one of the plurality of data objects between a time the initial value and current value are calculated will cause the initial value to differ from the current value.

23. (Original) The system of claim 22, wherein the means for updating the data object updates each of the plurality of data objects with the data from the corresponding editable field in the received page, wherein at least one of the editable fields includes modified data.

24. (Original) The system of claim 17, wherein the page includes multiple editable fields, wherein each of the editable fields corresponds to one of a plurality of data objects,

wherein the means for calculating the initial value calculates a plurality of initial values, wherein each initial value is calculated from at least one data object corresponding to at least one editable field in the page;

wherein the means for calculating the current value further calculates a plurality of current values, wherein each current value is calculated from at least one data object corresponding to at least one editable field in the page;

wherein the means for determining whether the initial value transmitted with the received page is different than the current value performs the determination for each of the plurality of initial and current values; and

wherein the means for updating the data object with the modified data included in the received page updates each data object used in the calculation of the matching initial and current values with the modified data included in the received page.

25. (Original) The system of claim 24, further comprising:

means for generating information on groups of the data objects corresponding to editable fields in the page, wherein each group comprises at least one data object corresponding to one editable field in the page, and wherein one initial value is calculated for each group from the data objects in the group.

26. (Original) The system of claim 25, wherein each data object is associated with only one group.

27. (Original) The system of claim 24, further comprising:

means for generating information into a message indicating editable fields corresponding to data objects used in calculating initial and current values that do not match; and

means for generating information into the message that modifications made to the indicated editable fields were not applied.

28. (Original) The system of claim 17, wherein the means for calculating the initial value and current value performs a checksum operation on the at least one data object.

29. (Original) The system of claim 17, wherein the page comprises one of a Hypertext Markup Language page, Extensible Markup Language (XML) page, an American Standard Code for Information Interchange (ASCII) text file, and Standard Generalized Markup Language (SGML).

30. (Original) The system of claim 17, wherein each data object comprises a file in a file system.

31. (Original) The system of claim 17, wherein the user program generates a graphical user interface in which the page is rendered and presented.

32. (Original) The system of claim 17, wherein the initial value is encoded in the page.

33. (Currently Amended) An article of manufacture including code for managing accesses to data objects by multiple user programs over a network, wherein the code causes operations to be performed comprising:

generating a page including at least one editable field of data from at least one data object;

calculating an initial value from the at least one data object, said initial value reflecting the initial state of information in said data object;

transmitting the page and the initial value to one user program over the network;

receiving the page and the initial value from the user program, wherein the received page includes modified data in at least one editable field;

calculating a current value from the at least one data object after receiving the page, said current value reflecting the current state of information in said data object;

determining whether the initial value transmitted with the received page is different than the current value; and

if the initial and current values match, updating the data object with the modified data included in the received page.

34. (Original) The article of manufacture of claim 33, further comprising:

not updating the data object with the modified data in the received page if the initial and current values do not match.

35. (Original) The article of manufacture of claim 34, further comprising:

returning a message to the user program transmitting the page indicating that the modified data in the transmitted page was not applied to the data object.

36. (Original) The article of manufacture of claim 33, wherein updating the data object comprises adding the modified data to the content of the data object.

37. (Original) The article of manufacture of claim 33, wherein updating the data object comprises adding the modified data to a name of the data object.

38. (Original) The article of manufacture of claim 33, wherein the page includes multiple editable fields, wherein each of the editable fields correspond to one of a plurality of data objects, wherein the value is calculated from the plurality of the data objects, whereby a modification to one of the plurality of data objects between a time the initial value and current value are calculated will cause the initial value to differ from the current value.

39. (Original) The article of manufacture of claim 38, wherein updating the data object further comprises updating each of the plurality of data objects with the data from the corresponding editable field in the received page, wherein at least one of the editable fields includes modified data.

40. (Original) The article of manufacture of claim 33, wherein the page includes multiple editable fields, wherein each of the editable fields corresponds to one of a plurality of data objects,

     wherein calculating the initial value further comprises calculating a plurality of initial values, wherein each initial value is calculated from at least one data object corresponding to at least one editable field in the page;

     wherein calculating the current value further comprises calculating a plurality of current values, wherein each current value is calculated from at least one data object corresponding to at least one editable field in the page;

     wherein determining whether the initial value transmitted with the received page is different than the current value is performed for each of the plurality of initial and current values; and

     wherein updating the data object with the modified data included in the received page further comprises updating each data object used in the calculation of the matching initial and current values with the modified data included in the received page.

41. (Original) The article of manufacture of claim 40, further comprising:

     generating information on groups of the data objects corresponding to editable fields in the page, wherein each group comprises at least one data object corresponding to one editable field in the page, and wherein one initial value is calculated for each group from the data objects in the group.

42. (Original) The article of manufacture of claim 41, wherein each data object is associated with only one group.

43. (Original) The article of manufacture of claim 40, farther comprising:

generating information into a message indicating editable fields corresponding to data objects used in calculating initial and current values that do not match; and

generating information into the message that modifications made to the indicated editable fields were not applied.

44. (Original) The article of manufacture of claim 33, wherein the initial value and current value are calculated by performing a checksum operation on the at least one data object.

45. (Original) The article of manufacture of claim 33, wherein the page comprises one of a Hypertext Markup Language page, Extensible Markup Language (XML) page, an American Standard Code for Information Interchange (ASCII) text file, and Standard Generalized Markup Language (SGML).

46. (Original) The article of manufacture of claim 33, wherein each data object comprises a file in a file system.

47. (Original) The article of manufacture of claim 33, wherein the user program generates a graphical user interface in which the page is rendered and presented.

48. (Original) The article of manufacture of claim 33, wherein the initial value is encoded in the page.